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VALIDITY ANALYSIS OF THE GROUP AWARENESS TEST OF THE DIFFERENTIAL OFFICER BATTERY

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VALIDITY ANALYSIS OF THE GROUP AWARENESS TEST OF THE DIFFERENTIAL OFFICER BATTERY

BACKGROUND

The Group Awareness Test (GAT) was developed as part of an extensive program of research to determine the extent to which ability to meet the psychological demands of combat, administrative, and technical officer assignments can be differentially predicted by psychological measures. As the first step of this program, an extensive battery of experimental tests was constructed and administered to over 6000 officers at entry on active duty in 1958. On the basis of item analysis against performance ratings after about 18 months of service, the earlier battery--the Differential Officer Leadership Battery (DOL)--was revised and shortened to form the Differential Officer Battery (DOB). In 1961 and 1962, the DOB was administered to about 4000 officers at entry on active duty.

Internal analysis of the Group Awareness Test was completed and reported in Research Memorandum 68-10.[1] Subsequently, the scores derived from the internal analysis were included in a factor analysis of 149 subscores from the Differential Officer Battery. In this analysis several factors included only GAT scores. Because of this finding--and the unique nature of items of the GAT--further specific validation studies were undertaken. The present publication covers work completed on the further validation.

OBJECTIVE

The Group Awareness Test was included in the experimental DOL in an effort to measure the officer's empathy or ability to estimate the opinions of peers and subordinates. As first constructed[2], the GAT consisted of two forms, A (DA PT 3400) and B (DA PT 3401), each composed of 75 job-related attitudinal statements. When the DOL was revised and shortened to form the DOB, the GAT was reduced to a single form of 75 items

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1. Smith, K. H. Internal analysis of the Group Awareness Test for the Differential Officer Battery. ARI Research Memorandum 68-10. September 1968.

2. Bornstein, H., R. Sadacca, and R. Phillips. Development of differential officer leadership experimental test battery. ARI Research Memorandum 57-27. December 1957.

(DA PT 4093)[2] . The items are all statements of opinion or attitude with regard to work habits, leader-follower relationships, human nature, and various kinds of pursuits and activities. The examinee is instructed to estimate for each statement what proportions of representative groups of NCOs, recruits, and ROTC graduates would endorse the statement. There are thus three responses to each of the 75 items, producing a total of 225 scorable responses. The format for responding is such that each item on the answer sheet is followed by three rows of five alternatives. In each row, the alternatives are represented by the letters A, B, C, D, E. At the top of each page of the test booklet, the following code for the alternatives is printed: A = Very few (0% - 19%); B = Few (20% - 39%); C = About half (40% - 59%); D = Many (60% - 79%); E = Very many (80% - 100%).

In the internal analysis, it was difficult to find consistent and stable clusters beyond a general Social Desirability cluster and a Cynicism cluster, both of which seem to be general across the three estimation populations. Further, it was difficult to determine whether a score based on the accuracy of the examinee's estimates of the groups' real responses or a score based on simply his attitude about what the responses would be was the most significant indicator of leadership behavior potential. As a result, the 24 scores which were finally derived from the GAT were computed as simple summation scores and also as deviation accuracy scores.

In the present analysis, these 48 scores were utilized along with some others specially computed for the purpose. The specially computed scores were of two general kinds. The first kind involved differences in the examinee's estimates of the responses which would be made by the three estimation populations. There were 36 such "difference" scores. The second kind of score specially computed for this analysis involved clustering of item types on a different basis than those derived from the internal analysis. Twelve such scores were obtained.

The present research memorandum presents the analysis of the 96 scores from the GAT described above for their validity in predicting performance at the Officer Evaluation Center (OEC).

PROCEDURES

SAMPLE

For this study the sample included some 735 cases for whom complete DOB records were available and for whom complete records of performance

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[2] Willemin, L. P. Prediction of officer performance. ARI Technical Research Report 1134. March 1964.

at the OEC were also available. This same sample serves as the validity analysis sample in all instances where predictors are being validated against performance at OEC.

GAT SCALE SCORES

Of the scores analyzed in the present study, 48 came directly from the internal analysis reported in Research Memorandum 68-10[4]. Four additional scales were constructed utilizing new item clusterings. A general Social Desirability score was computed including all items on which the three estimation populations had actually responded preponderantly on either end of the scale. Three other item cluster scales were made up including those items on which members of a specific estimation population had responded in a way substantially different from the other two estimation populations. These scales are titled NCO Unique, Recruit Unique, and ROTC Unique. The item clusters making up these scales are listed in Table A-1.

Each of the simple item sum scale scores can be conceived as an estimate by the examinee of the typical attitude of members of the estimation population with regard to the subject matter represented by the item cluster. For example, the Good Work Habits scale score for the NCO estimation population can be considered as the examinee's estimate of what the average NCO's attitude is toward the value of hard work. When this score is compared with the same scale score for Recruits and for recent ROTC graduates, we can begin to get some feeling for the examinee's relative estimates of the attitudes of these three estimation populations. In order to determine the predictive validity of these differences in attitude estimation, each of the item sum scale scores was utilized in computing difference scores. Twelve item sum scores were so utilized--the eight derived from the original internal analysis and the four computed specifically for the present validity study. For each of these 12 item clusters, three difference scores were computed: 1) by subtracting the Recruit estimation from the NCO estimation total, 2) by subtracting the ROTC estimation total from the NCO total, and 3) by subtracting the ROTC estimation total from the Recruit total.

OEC PERFORMANCE SCORES

At the OEC, 15 tasks were performed in a simulated combat setting over a three-day period[5]. Each task yielded a total score along with several other scores more specific to performance of part of the task or

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[4] Smith, K. H. Internal analysis of the Group Awareness Test for the Differential Officer Battery. ARI Research Memorandum 68-10. September 1968.

[5] Helme, W. H., L. P. Willemin, and Frances C. Grafton. Dimensions of leadership in a simulated combat situation. ARI Technical Research Report 1172. July 1971.

to aspects of the examinee's task behavior. There were 342 individual performance scores in total. These were factor analyzed and yielded thirty factors of performance more or less specific to each of the 15 tasks. In a separate analysis, eight factors which represented behavior over several of the tasks were derived. Using correlation of sums with unit weights in most instances and test selection procedures in others, combinations of scores were computed to provide a score for each examinee on each of the 38 factors.

These 38 factor scores, along with the 15 task total scores, served as the criterion scores for validation of the GAT as a predictor of performance. It should be noted that none of these three sets of OEC scores is totally independent of the others.

RESULTS

OEC CROSS-TASK FACTOR SCORE PREDICTION

In general, the results of the product moment correlational analysis between the 96 GAT scores and the 8 OEC cross-task factor scores are disappointing. The highest correlation which resulted was .17. With a sample of 735 cases, a correlation of approximately .08 reaches statistical significance at the .05 level. However, in terms of the proportion of variance accounted for, the level necessary for practical significance would be considerably higher.

In order to analyze the pattern of correlations, only correlation coefficients of .10 or higher in absolute magnitude were considered. Only two of the cross-task factors showed any consistent relationship with the GAT scores. These were: factor 1, Technical-managerial leadership; and factor 7, Tactical skills. None of the other cross-task factors showed more than 4 coefficients of .10 or above, and none of these was above .12. This suggests strongly that chance was involved in these correlations. Tables 1 and 2 show the pattern of correlations for factors 1 and 7 with the 96 GAT scores. In the tables, coefficients of less than .10 in absolute magnitude have been deleted for purposes of clarity.

From a review of Tables 1 and 2, we see that factor 7, Tactical skills, is most consistently predicted. Nearly all the original sum and accuracy scores are related, as are quite a few of the scale difference scores. It is interesting that the sum scores are positively related in all but one case. On the other hand, the accuracy scores are negatively related for recruit estimates, positively related, generally, for ROTC estimates, and split in direction for NCO estimates. Twelve of fourteen correlations for scale difference scores are negative. This suggests that large differences in the perception of the estimation groups that favor NCO's over recruits or ROTC graduates, or that favor recruits over ROTC graduates, are associated with poor performance in activities involved in the tactical skills factor score.

Factor 1, Technical-managerial leadership, is much less consistently predicted. Most of the coefficients of .10 or higher reflect correlation with the original accuracy scores, and to a lesser extent with the original sum scores. It is of particular interest that in every case where both factors 1 and 7 correlate with a GAT score at the level of .10 or higher the relationships are in opposite directions. Since this occurs 16 times, it seems safe to conclude that the characteristics measured by the GAT relate to performance in the technical-managerial area and the tactical skills area in opposite ways.

OEC TASK-SPECIFIC FACTOR SCORE PREDICTION

The results of correlating the 30 task-specific OEC performance factors with the 96 GAT scores were similar to those for the cross-task factors. Four task-specific factors showed relatively consistent patterns of correlation. These were: factor 2, Mission Effectiveness in the Communication Exhibit task; factor 8, Mission Effectiveness in the Automotive Inspection task; factor 14, Mission Effectiveness in the Highway Traffic Plan task; and factor 18, Combat Persistence versus Technical Persistence (one of two factors in the 30 factor solution with loadings across more than one task).

While none of the coefficients in Tables 3 and 4 is very high (a maximum of .16), they show consistency with those found in Tables 1 and 2. Among the original 48 sum and accuracy scores there is sufficient overlap to compare the results of Table 1 and Table 3. Of 20 instances where coefficients of .10 or higher occur for both cross-task factor 7 and factor 18 of the 30 factor solution, 18 show the same sign. This strongly suggests that the pattern of relationships of GAT scores with combat or tactical performance is the same.

The pattern of relationships shown in Table 3 for factors 2, 8, and 14 is remarkably consistent. In only two instances out of 36 cases, where at least two of these factors show coefficients of .10 or higher with a single GAT score, is there a difference in signs. This pattern of signs agrees almost completely with that shown for factor 1 in Table 1. This would be expected since factors 2, 8, and 14 from the thirty task-specific factors all deal with performance in technical areas and factor 1 of the 8 cross-task factors is called technical-managerial leadership.

While factors 2, 8, and 14 show consistent patterns in Table 4, factor 1 does not show enough coefficients in Table 2 for comparison. The reverse is true for the comparison of factor 7 in Table 2 as compared with factor 18 in Table 4. In general, it seems safe to say that the patterns shown in Tables 3 and 4 lead to a conclusion quite similar to that drawn from Tables 1 and 2. The characteristics measured by the GAT relate to performance in technical areas and performance in combat areas in opposite ways.

OEC TASK TOTAL SCORE PREDICTION

The correlations between OEC task total scores and the 96 GAT variables reveal a continuation of the pattern shown by the other analyses. Here three total scores show consistent relationships with GAT scores. In Tables 5 and 6, the total scores for Airfield Layout (AL) and Automotive Inspection (AI) show patterns of correlations with the same sign as those for the mission effectiveness factor scores from these two tasks (see factor 8 in Table 3). The correlations are also of about the same magnitude. The total score for the Improper Supply Records (ISR) task shows the same pattern of signs, but the absolute magnitude of the relationships is a little higher. Many of these relationships are in the low to middle 20's.

The general pattern is again one of prediction of technical performance. One might wonder, however, why the ISR task total score should show the strongest pattern of correlations when the two factors, from the thirty-factor solution, based on ISR scores did not show consistent patterns. The answer seems to lie in the fact that the ISR task required two very different kinds of skills--one technical and one interpersonal. The majority of the examinee's time in this task was spent in correcting erroneous supply records. He then had to brief an angry and difficult officer on the reasons that the records were in error. The two task-specific factors both involved only scores related to this briefing. One of these, factor 12, was based primarily on his poise and his understanding of the principles he was trying to explain. The other, factor 19, was based mainly on his tact and flexibility in handling the interpersonal problems presented by the angry officer. To the extent that comparison was possible with the few coefficients above .10 for each of these factors, it appeared that the former was compatible with the general pattern of GAT correlations predicting technical performance while the latter was not. The total task score was more completely reflective of performance in the technical area of understanding the record keeping principles and the use of them in correcting the supply records, briefing the officer, and writing a clear report. The total score was apparently not as much affected by the more specifically interpersonal ratings of tact and flexibility.

Table 7 contrasts the pattern of correlations with GAT scores obtained for the Communications Exhibit (CE) total score with those obtained for the March Order (MO) total score. Again CE shows the technical performance pattern. To the extent that comparison is possible the MO pattern is compatible with the tactical or combat pattern.

Since none of the individual correlation coefficients was very large, it was felt that, perhaps, some weighted combination of scores might predict OEC performance at a more respectable level. As a result, a test selection procedure was applied using the ISR total score as the dependent variable and the 48 original sum and accuracy scores as predictors. An addition of at least one percent of variance accounted for in the multiple

correlation was utilized as the minimal criterion for inclusion of additional predictors. Once the predictor with the highest zero-order correlation had been selected, none of the other predictors met the minimal criterion for inclusion in a multiple correlation. This procedure was repeated using the AL total score as dependent variable, with the same result. Apparently the 48 sum and accuracy scores overlap almost completely in the variance they account for in the performance scores.

CONCLUSIONS

There is sufficient regularity to the patterns of relationship shown by the GAT scores to performance in the OEC situational tasks to suggest that further research could be revealing. If certain assumptions were made it might be possible to tie these results to some basic conclusions about leadership that seem fairly generally accepted among industrial psychologists. If we should assume that the GAT is measuring consistent dispositional characteristics of the examinees with regard to their attitude toward co-workers and subordinates, and if we should assume that the technical skills tasks reflect a strong task orientation while combat or tactical skills tasks reflect more concern or consideration for the motivations and feelings of men, then we might begin to interpret the findings in terms of leadership models such as the one proposed by Fiedler.[6] Obviously the assumptions are shaky at best, and much work would need to be done to demonstrate any such comparability.

Even though there is some consistency in patterns of relationship, the internal analysis conducted earlier and reported in Research Memorandum 68-10 casts serious doubt on the structure of this test in terms of its measuring any clear patterns of attitude estimation by the examinee. The low coefficients of correlation reported herein cast further doubt on the operational value of this particular approach to the measurement of leadership potential. The results of these two analyses suggest that very little of value would be gained in making present GAT measurement procedures an operational part of officer assessment.

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[6] Fiedler, F. E. Personality and situational determinants of leadership effectiveness. In D. Cartwright and A. Zander (Eds.), Group dynamics. (3rd ed.) New York: Harper and Row, 1968.

TABLE 1

CORRELATION BETWEEN ORIGINAL 48 GAT SCALE SCORES
AND OEC CROSS-TASK PERFORMANCE FACTOR SCORES

Scale	Var #	NCO Sum Scores OEC Factor r's 1	7	Var #	Recruit Sum Scores OEC Factor r's 1	7	Var #	ROTC Sum Scores OEC Factor r's 1	7
Good Work Habits	1		.13	9		.11	17		.11
Leader-follower Relations	2		.15	10		.15	18		.14
Fighting Man's Code	3		.13	11		.12	19		.13
Marriage and Family	4			12			20		.10
Cynical View of Human Nature	5		.12	13		.13	21		.14
Educated Sophistication	6	-.14	.10	14	-.11	.11	22	-.10	.14
Personal Integrity	7		.12	15	-.10	.12	23	-.10	.13
Activities	8		-.12	16			24		.11

Scale	Var #	NCO Accuracy Scores OEC Factor r's 1	7	Var #	Recruit Acc. Scores OEC Factor r's 1	7	Var #	ROTC Acc. Scores OEC Factor r's 1	7
Good Work Habits	25	-.13	.14	33	.10	-.14	41		-.14
Leader-follower Relations	26		.11	34		-.17	42		
Fighting Man's Code	27		.12	35		-.13	43	-.10	.14
Marriage and Family	28			36	.11	-.14	44		
Cynical View of Human Nature	29		.13	37			45	-.10	.12
Educated Sophistication	30	.12	-.17	38		-.14	46	-.12	.13
Personal Integrity	31	.10	-.16	39	.11	-.16	47	-.11	
Activities	32		-.13	40	.10	-.13	48		.15

TABLE 2

CORRELATION BETWEEN ADDITIONAL GAT SCALE SCORES AND SCALE DIFFERENCE SCORES AND OEC CROSS-TASK PERFORMANCE FACTOR SCORES

Sum Score Scale	Var #	NCO Sum Scores OEC Factor r's 1	7	Var #	Recruit Sum Scores OEC Factor r's 1	7	Var #	ROTC Sum Scores OEC Factor r's 1	7
Social Desirability	49		.12	53			57	-.10	
NCO Unique Items	50			54			58		-.12
Recruit Unique Items	51			55			59		
ROTC Unique Items	52			56			60		
Difference Score Scale	**Var #**	**NCO-Recruit Scores OEC Factor r's 1**	**7**	**Var #**	**NCO-ROTC Scores OEC Factor r's 1**	**7**	**Var #**	**Recruit-ROTC Scores OEC Factor r's 1**	**7**
Good Work Habits	61			73			85		
Leader-follower Relations	62			74			86		
Fighting Man's Code	63			75			87		
Marriage and Family	64			76		-.11	88		-.10
Cynical View of Human Nature	65		-.11	77		-.13	89		
Educated Sophistication	66			78		-.15	90		-.14
Personal Integrity	67			79			91		-.11
Activities	68		-.11	80		-.14	92		-.11
Social Desirability	69			81		.16	93		.10
NCO Unique Items	70			82			94		
Recruit Unique Items	71			83			95		
ROTC Unique Items	72	.10	-.13	84		-.13	96		

TABLE 3

CORRELATION BETWEEN ORIGINAL 48 GAT SCALE SCORES
AND OEC TASK-SPECIFIC FACTOR SCORES

Scale	Var #	NCO Sum Scores — OEC Factor r's 2	8	14	18	Var #	Recruit Sum Scores — OEC Factor r's 2	8	14	18	Var #	ROTC Sum Scores — OEC Factor r's 2	8	14	18
Good Work Habits	1		-.13	-.14	.11	9	-.11			.13	17		-.10	-.11	
Leader-follower Relations	2		-.14	-.11	.11	10	-.11	-.15		.12	18		-.13	-.12	
Fighting Man's Code	3		-.14	-.11	.10	11	-.11	-.11	-.10	.10	19		-.13	-.11	.10
Marriage and Family	4					12					20		-.12		
Cynical View of Human Nature	5		-.13	-.11	.10	13		-.15	-.11	.10	21		-.15	-.11	.10
Educated Sophistication	6	-.12	-.13	-.11		14	-.11	-.15	.11		22	-.10	-.15	-.11	
Personal Integrity	7	.10	-.15		.13	15		-.13	-.13	.10	23		-.13	-.13	.11
Activities	8		.10			16					24		-.13		.14

Scale	Var #	NCO Accuracy Scores — OEC Factor r's 2	8	14	18	Var #	Recruit Acc. Scores — OEC Factor r's 2	8	14	18	Var #	ROTC Acc. Scores — OEC Factor r's 2	8	14	18
Good Work Habits	25	-.10	-.14	-.13		33	.11	.14	.12	.10	41		.12	.10	.11
Leader-follower Relations	26	-.10	-.13		.10	34	.10	.16			42	-.11	-.12		
Fighting Man's Code	27	-.11	-.12		.14	35	.10	.13			43	-.11	-.14	-.11	
Marriage and Family	28				.16	36	.10	.14	.13		44		-.10		
Cynical View of Human Nature	29		-.14	-.12	.12	37					45		-.12	-.11	.10
Educated Sophistication	30	.10	.15	.12		38		.13			46	-.10	-.13	-.12	
Personal Integrity	31		.15	.10		39	.10	.15	.11		47			-.11	
Activities	32		.13	.10		40	.10	.15	.12		48	-.13	-.14	-.10	

TABLE 4

CORRELATION BETWEEN ADDITIONAL CAT SCALE SCORES AND SCALE DIFFERENCE SCORES AND OEC TASK-SPECIFIC FACTOR SCORES

Sum Score Scale	Var #	NCO Sum Scores — OEC Factor r's 2	8	14	18	Var #	Recruit Sum Scores — OEC Factor r's 2	8	14	18	Var #	ROTC Sum Scores — OEC Factor r's 2	8	14	18
Social Desirability	49		-.10			53					57				
NCO Unique Items	50					54					58		.13	.10	.11
Recruit Unique Items	51					55					59				
ROTC Unique Items	52					56					60		-.10		
Difference Score Scale	**Var #**	**NCO-Recruit Scores — OEC Factor r's 2**	**8**	**14**	**18**	**Var #**	**NCO-ROTC Scores — OEC Factor r's 2**	**8**	**14**	**18**	**Var #**	**Recruit-ROTC Scores — OEC Factor r's 2**	**8**	**14**	**18**
Good Work Habits	61		-.15			73		-.11			85				
Leader-follower Relations	62			-.10		74					86			.13	
Fighting Man's Code	63		-.10			75					87				
Marriage and Family	64					76		.12	.10		88	.10	.14	.11	
Cynical View of Human Nature	65		.12			77	.10	.12			89				
Educated Sophistication	66					78		.14	.10		90		.12	-.10	
Personal Integrity	67		-.12		.12	79			.12		91				
Activities	68		.10	.11		80	.10	.14			92		.13		.12
Social Desirability	69		-.11			81		-.16	-.11		93	-.10			
NCO Unique Items	70					82					94				.10
Recruit Unique Items	71					83					95				
ROTC Unique Items	72		.13	.11		84		.17	.10		96				

TABLE 5

CORRELATION BETWEEN ORIGINAL 48 GAT SCALE SCORES
AND OEC TASK TOTAL SCORES

Scale	Var #	NCO Sum Scores — OEC Total Scores ISR	AI	AL	Var #	Recruit Sum Scores — OEC Total Scores ISR	AI	AL	Var #	ROTC Sum Scores — OEC Total Scores ISR	AI	AL
Good Work Habits	1	-.20	-.12	-.10	9	-.20			17	-.19		-.10
Leader-follower Relations	2	-.21	-.11	-.11	10		-.12		18	-.22	-.10	-.10
Fighting Man's Code	3	-.17	-.10	-.12	11			-.10	19	-.21	-.11	
Marriage and Family	4				12				20	-.19	-.10	-.10
Cynical View of Human Nature	5	-.21			13	-.20		-.10	21	-.22		-.10
Educated Sophistication	6	-.25	-.10	-.15	14	-.22	-.11	-.13	22	-.22	-.10	-.11
Personal Integrity	7	-.21	-.12	-.11	15	-.20		-.13	23	-.22		-.12
Activities	8				16	-.17			24	-.21		-.10

Scale	Var #	NCO Accuracy Scores — OEC Total Scores ISR	AI	AL	Var #	Recruit Acc. Scores — OEC Total Scores ISR	AI	AL	Var #	ROTC Acc. Scores — OEC Total Scores ISR	AI	AL
Good Work Habits	25	-.22			33	.23	.12		41	.20		
Leader-follower Relations	26	-.16		-.15	34	.16	.12		42	-.14		
Fighting Man's Code	27	-.16		-.13	35	.19			43	-.18		-.12
Marriage and Family	28	-.16		-.13	36	.23	.12		44			
Cynical View of Human Nature	29	-.23		-.10	37				45	-.19		
Educated Sophistication	30	.23	.11	-.10	38	.19			46	-.18		-.14
Personal Integrity	31	.20	.12	.10	39	.20		.11	47	-.18		-.12
Activities	32	.18			40	.22	.11		48	-.12		-.11

Note: ISR = Improper Supply Records, AI = Automotive Inspection, and AL = Airfield Layout.

TABLE 6

CORRELATION BETWEEN ADDITIONAL GAT SCALE SCORES AND SCALE DIFFERENCE SCORES AND OEC TASK TOTAL SCORES

Sum Score Scale	Var #	NCO Sum Scores — OEC Total Scores ISR	AI	AL	Var #	Recruit Sum Scores — OEC Total Scores ISR	AI	AL	Var #	ROTC Sum Scores — OEC Total Scores ISR	AI	AL
Social Desirability	49				53				57			
NCO Unique Items	50				54				58		.22	.14
Recruit Unique Items	51				55			-.12	59			
ROTC Unique Items	52				56				60			
Difference Score Scale	**Var #**	**NCO-Recruit Scores — OEC Total Scores ISR**	**AI**	**AL**	**Var #**	**NCO-ROTC Scores — OEC Total Scores ISR**	**AI**	**AL**	**Var #**	**Recruit-ROTC Scores — OEC Total Scores ISR**	**AI**	**AL**
Good Work Habits	61		-.11	-.10	73				85			
Leader-follower Relations	62				74				86		.13	
Fighting Man's Code	63				75				87			
Marriage and Family	64				76				88			
Cynical View of Human Nature	65			.11	77				89			
Educated Sophistication	66				78				90			
Personal Integrity	67				79	.10			91			
Activities	68	-.10			80	.11			92		.11	
Social Desirability	69				81			-.11	93			
NCO Unique Items	70				82				94			
Recruit Unique Items	71				83				95			
ROTC Unique Items	72	.13			84	.19			96		.10	

Note: ISR = Improper Supply Records, AI = Automotive Inspection, and AL = Airfield Layout.

TABLE 7

PATTERNS OF SIGNIFICANT CORRELATIONS BETWEEN GAT SCORES AND TOTAL SCORES FOR THE COMMUNICATIONS EXHIBIT AND MARCH ORDER TASKS

GAT Variable	Estimation Group	Variable Number	Communications Exhibit	March Order r
Original Sum Scores				
Marriage and Family	NCO	4	--	.10
Educated Sophistication	NCO	6	-.11	--
Leader-Follower Relation	REC	10	-.11	--
Educated Sophistication	REC	14	-.11	--
Educated Sophistication	ROTC	16	-.11	--
Original Accuracy Scores				
Good Work Habits	NCO	25	-.12	--
Good Work Habits	REC	33	.10	--
Leader-Follower Relations	REC	34	.11	--
Marriage and Family	REC	36	.10	--
Cynical View of Human Nature	ROTC	45	-.10	--
Activities	ROTC	48	-.13	--
Additional Sum Scores				
Social Desirability	REC	50	-.10	--
Scale Difference Scores				
Good Work Habits	NCO-ROTC	73	--	.12
Leader-Follower Relations	NCO-ROTC	74	--	.11
Fighting Man's Code	NCO-ROTC	75	--	.10
Educated Sophistication	NCO-ROTC	78	--	.15
Good Work Habits	REC-ROTC	85	--	.10
Fighting Man's Code	REC-ROTC	87	--	.10
Marriage and Family	REC-ROTC	88	--	.10
Educated Sophistication	REC-ROTC	90	--	.11
Recruit Unique Items	REC-ROTC	95	--	.10

APPENDIX

Table A-1

GAT ITEMS INCLUDED IN NEW ITEM SUM SCALES CONSTRUCTED SPECIFICALLY FOR THIS VALIDITY ANALYSIS

Scale Name	Items Included[a]
Social Desirability	1, 3, 9*, 10, 15, 29*, 25*, 30, 31, 34, 39* 43, 45*, 54, 55, 58, 63, 66, 67* 68, 69, 73*, 74, 75
NCO Unique	17, 24*, 41, 49, 50*, 61*
Recruit Unique	11*, 26, 27, 29*, 35, 42, 44*, 46, 52, 55*, 56, 70
ROTC Unique	6*, 12*, 17*, 18*, 19*, 21*, 23*, 24, 28*, 32*, 35*, 36*, 37*, 40*, 51*, 56* 57, 59*, 60, 61, 70*

[a] Starred items (*) were scored in reversed direction so that highest value would be given to the positive or socially desirable response.